

DOCKET NO. D-1999-040 CP-5

DELAWARE RIVER BASIN COMMISSION

**New Hanover Township Authority
Wastewater Treatment Plant Renewal
New Hanover Township, Montgomery County, Pennsylvania**

PROCEEDINGS

This docket is issued in response to an application submitted to the Delaware River Basin Commission (DRBC or Commission) on October 18, 2019 (Application) for renewal of the docket holder's existing wastewater treatment plant (WWTP) and its discharge. National Pollutant Discharge Elimination System (NPDES) Permit No. PA0057819 for this discharge was issued by the Pennsylvania Department of Environmental Protection (PADEP) on October 21, 2015.

The application was reviewed for continuation of the project in the Comprehensive Plan and approval under Section 3.8 of the *Delaware River Basin Compact*. The Montgomery County Planning Commission has been notified of pending action. A public hearing on this project was held by the DRBC on August 12, 2020.

A. DESCRIPTION

- Purpose.** The purpose of this docket is to renew approval of the docket holder's existing 1.925 million gallons per day (mgd) WWTP and its discharge.
- Location.** The docket holder's WWTP is located on Fagleysville Road, just north of Swamp Creek, in New Hanover Township, Montgomery County, Pennsylvania. The WWTP will continue to discharge treated effluent to Swamp Creek at River Mile 92.5 – 31.2 – 12.9 – 4.8 (Delaware River – Schuylkill River – Perkiomen Creek – Swamp Creek).

The WWTP outfall is located in the Schuylkill River Watershed as follows:

| OUTFALL NO. | LATITUDE (N) | LONGITUDE (W) |
|--------------------|---------------------|----------------------|
| 001 | 40° 16' 45" | 75° 32' 50" |

- Area Served.** The docket holder's WWTP will continue to serve New Hanover Township in Montgomery County, Pennsylvania. For the purpose of defining the Area Served, Section B (Type of Discharge) and D (Service Area) of the docket holder's Application are incorporated herein by reference, to the extent consistent with all other conditions contained in Section C. DECISION.

4. **Design Criteria.** The docket holder's WWTP utilizes an oxidation ditch treatment system, with alum addition for phosphorous removal, and ultraviolet light (UV) disinfection. The WWTP is designed to treat an average annual flow of 1.925 mgd and has a maximum monthly design capacity of 3.08 mgd.

5. **Facilities.** The WWTP facilities consist of consist of a mechanical bar screen / grit removal system, 3 distribution chambers, 4 Kruger oxidation ditches, 4 clarifiers, UV disinfection, a post-aeration tank, and cascade aeration to increase dissolved oxygen. Sludge handling consists of 2 aerobic digesters, 2 sludge holding tanks, sludge thickening and dewatering.

The project facilities are not located in the 100-year floodplain.

Wasted sludge will continue to be hauled off-site by a licensed hauler for disposal at a state approved facility.

6. **Water Withdrawals.** The potable water supply in the project service area is supplied by groundwater wells owned and operated by Aqua, Pennsylvania (d/b/a Superior Water Company). The groundwater withdrawal is described in detail in Docket No. 2001-015 CP-6, which was approved by the DRBC on December 14, 2016.

7. **NPDES / DRBC Effluent Requirements.** NPDES Permit No. PA0057819 was issued by the PADEP on April 1, 2020 and includes final effluent limitations for the project discharge to surface waters classified by the PADEP as supporting trout stocking fishes (TSF). EFFLUENT TABLES C-1 and C-2 included in Section C.1. contain effluent requirements for DRBC parameters that must be met as a condition of this approval. Effluent requirements for Outfall No. 001 are based on a discharge rate of 1.925 mgd.

8. **Relationship to the Comprehensive Plan.** The project WWTP and its discharge was incorporated into the DRBC Comprehensive Plan via Docket No. D-1973-026 CP (REV) on January 24, 1979 and renewed/modified via Docket Nos. D-1999-030-CP-1, D-1999-040 CP-2, D-1999-040 CP-3, and D-1999-030-CP-4 on March 7, 2000, December 12, 2006, September 10, 2014, and September 13, 2018, respectively. Issuance of this docket (D-1999-040 CP-5) renews and continues the WWTP in the Comprehensive Plan.

B. FINDINGS

The docket holder submitted an application to renew approval of their existing 1.925 mgd WWTP and its discharge. The application also included a request to renew approval of a TDS determination consisting of an average monthly TDS effluent limit of 1,200 mg/l.

1. Total Dissolved Solids (TDS) Determination

Section 3.10.4.D.2 of the Commission's Water Quality Regulations (WQR) states the following:

“Total dissolved solids shall not exceed 1000 mg/l, or a concentration established by the Commission which is compatible with designated water uses and stream quality objectives, and recognizes the need for reserve capacity to serve future dischargers.”

Docket No. D-1990-040 CP-4 granted a request from the docket holder for a TDS determination consisting of an average monthly TDS effluent limit of 1,200 mg/l. During the review of Docket No. D-1990-040 CP-4, DRBC staff determined that the monitoring/sampling and other information provided by the docket holder supported the docket holder's claim that elevated WWTP effluent TDS levels are not caused by the WWTP operations/processes and may be exacerbated by the elevated hardness in the public water supply. The following information supported the request:

1. TDS influent and effluent monitoring performed weekly from 2015 to 2017 did not consistently indicate higher effluent TDS than influent TDS. On the contrary, there were many instances when the influent TDS exceeded the effluent TDS. For several of these instances, TDS effluent did not exceed 1,000 mg/l, and the TDS influent exceeded 1,000 mg/l.
2. Aluminum sulfate (alum) is added to the WWTP treatment process to reduce Phosphorous in the effluent. Although alum addition may cause a small increase in TDS in the effluent, the docket holder indicated that alum addition is limited to reduce effluent TDS.
3. The docket holder sampled manholes and points along the sewer collection system to determine if TDS was elevated in different sections of the service area throughout the collection system types. Although data from a combined commercial and residential section of the service area was elevated at times, the results were not consistent enough to identify this section as being the only area of elevated TDS.
4. The docket holder sampled the receiving stream (Swamp Creek) for background TDS concentration, at locations upstream and downstream of the WWTP discharge, and the results ranged from 155 mg/l to 445 mg/l. The results did not indicate that the downstream background TDS was greater than upstream background TDS. Results were highly variable.
5. The docket holder obtained well sampling reports from the water supply provider in the WWTP service area (Aqua, Pennsylvania d/b/a Superior Water Company) and the TDS concentration ranged from 417 mg/l to 648 mg/l with individual components of chlorides and sulfates varying considerably.

Additionally, Docket No. D-1990-040 CP-4 required the docket holder to monitor WWTP influent for TDS on a monthly basis. This docket renews approval of the TDS determination consisting of an average monthly TDS effluent limit of 1,200 mg/l and continues the requirement to sample influent monthly (See EFFLUENT TABLES C-1 and C-2 in the DECISION section of this docket).

2. Other

At the docket holder's WWTP discharge, Swamp Creek has an estimated seven-day low flow with a recurrence interval of ten years (Q_{7-10}) of 1.6 mgd (2.42 cfs). The ratio of this low flow to the design flow of the 1.935 mgd WWTP is approximately 0.8 to 1.

The nearest surface water intake of record for public water supply is located on the Perkiomen Creek approximately 18 River Miles downstream of the docket holder's WWTP and is operated by the Borough of Pottstown.

The project does not conflict with the Comprehensive Plan and is designed to prevent substantial adverse impact on the water resources related environment, while sustaining the current and future water uses and development of the water resources of the Basin.

The effluent limits in the NPDES Permit are in compliance with Commission effluent quality requirements, where applicable.

The project is designed to produce a discharge meeting the effluent requirements as set forth in the Commission's WQR.

C. DECISION

Effective on the approval date for Docket No. D-1999-040 CP-5 below, the project described in Docket No. D-1999-040 CP-4 is removed from the Comprehensive Plan to the extent that it is not included in Docket No. D-1999-040 CP-5; Docket No. D-1999-040 CP-4 is terminated and replaced by Docket No. D-1999-040 CP-5; and the project and the appurtenant facilities described in Section A "DESCRIPTION" of this docket shall be continued in the Comprehensive Plan. The project and appurtenant facilities as described in Section A of this docket are approved pursuant to Section 3.8 of the *Compact*, subject to the following conditions:

Monitoring and Reporting

1. The docket holder shall comply with the requirements contained in the EFFLUENT TABLES below. The docket holder shall submit the required monitoring results electronically to the DRBC Project Review Section via email aemr@drbc.gov on the **Annual Effluent Monitoring Report Form** located at this web address: <https://www.nj.gov/drbc/programs/project/docket-app-info.html#3>. The monitoring results shall be submitted annually, absent any observed limit violations, by January 31. If a DRBC effluent limit is violated, the docket holder shall submit the result(s) to the DRBC within 30 days of the violation(s) and provide a written explanation that states the action(s) the docket holder has taken to correct the violation(s) and protect against any future violations. The following average monthly effluent limits are among those listed in the NPDES Permit and meet or are more stringent than the effluent requirements of the DRBC.

EFFLUENT TABLE C-1: DRBC Parameters Included in NPDES Permit

| OUTFALL NO. 001 (Swamp Creek) | | |
|--------------------------------------|-------------------------|-----------------------------|
| PARAMETER | LIMIT | MONITORING |
| pH (Standard Units) | 6 to 9 at all times | As required by NPDES permit |
| Total Suspended Solids | 10 mg/l | As required by NPDES permit |
| CBOD (5-Day at 20° C) | | As required by NPDES permit |
| All Year | 85% minimum removal | |
| (5-1 to 10-31) | 10 mg/l | |
| (11-1 to 4-30) | 15 mg/l | |
| Ammonia Nitrogen (5-1 to 10-31) | 1.5 mg/l | As required by NPDES permit |
| (11-1 to 4-30) | 3.0 mg/l | |
| Fecal Coliform | 200 colonies per 100 ml | As required by NPDES permit |
| Total Dissolved Solids* | 1,200 mg/l | As required by NPDES permit |
| BOD (5-Day at 20° C) Influent | Monitor & Report | As required by NPDES permit |

* See Condition C.3. below.

The following average monthly monitoring requirements are for DRBC parameters not included in the NPDES permit.

EFFLUENT TABLE C-2: DRBC parameters not included in NPDES permit

| Outfall No. 001 (Swamp Creek) | | |
|--------------------------------------|--------------------|---------|
| Total Dissolved Solids Influent | Monitor and report | Monthly |

* See Condition C.3. below.

Other Conditions

2. Except as otherwise authorized by this docket, if the docket holder seeks relief from any limitation based upon a DRBC water quality standard or minimum treatment requirement, the docket holder shall apply for approval from the Executive Director or for a docket revision in accordance with Section 3.8 of the *Compact* and the *Rules of Practice and Procedure*.

3. The docket holder may request of the Executive Director in writing the substitution of specific conductance for TDS. The request should include information that supports the effluent specific correlation between TDS and specific conductance. Upon review, the Executive Director may modify the docket to allow the substitution of specific conductance for TDS monitoring.

4. The docket holder is responsible for timely submittal to the DRBC of a docket renewal application on the appropriate application form including the appropriate docket application filing fee (see 18 CFR 401.43) at least 6 months in advance of the docket expiration date set forth below. The docket holder will be subject to late filed renewal surcharges in the event of untimely submittal of its renewal application, whether or not DRBC issues a reminder notice in advance of the deadline or the docket holder receives such notice. In the event that a timely and complete application for renewal has been submitted and the DRBC is unable, through no fault of the docket holder, to reissue the docket before the expiration date below, the terms and conditions of the

current docket will remain fully effective and enforceable against the docket holder pending the grant or denial of the application for docket approval.

5. The docket holder is permitted to treat and discharge wastewater as set forth in the Area Served Section of this docket, which incorporates by reference Sections B (Type of Discharge) and D (Service Area) of the docket holder's Application to the extent consistent with all other conditions of this DECISION Section.

6. The docket holder is prohibited from treating/pre-treating any hydraulic fracturing wastewater from sources in or out of the Basin at this time. Should the docket holder wish to treat/pre-treat hydraulic fracturing wastewater in the future, the docket holder will need to first apply to the Commission to renew this docket and be issued a revised docket allowing such treatment and an expanded service area. Failure to obtain this approval prior to treatment/pre-treatment will result in action by the Commission.

7. The facility and operational records shall be available at all times for inspection by the DRBC.

8. The facility shall be operated at all times to comply with the requirements of the Commission's *WQR*.

9. If at any time the receiving treatment plant proves unable to produce an effluent that is consistent with the requirements of this docket approval, no further connections shall be permitted until the deficiency is remedied.

10. Nothing herein shall be construed to exempt the docket holder from obtaining all necessary permits and/or approvals from other State, Federal or local government agencies having jurisdiction over this project.

11. The docket holder shall discharge wastewater in such a manner as to avoid injury or damage to fish or wildlife and shall avoid any injury to public or private property.

12. No sewer service connections shall be made to newly constructed premises with plumbing fixtures and fittings that do not comply with water conservation performance standards contained in Resolution No. 88-2 (Revision 2).

13. The issuance of this docket approval shall not create any private or proprietary rights in the waters of the Basin, and the Commission reserves the right to amend, suspend or rescind the docket for cause, in order to ensure proper control, use and management of the water resources of the Basin.

14. The docket holder shall be subject to applicable DRBC regulatory program fees, in accordance with duly adopted DRBC resolutions and/or regulations (see 18 CFR 401.43).

15. This approval is transferable by request to the DRBC Executive Director provided that the project purpose and area served approved by the Commission in this docket will not be materially altered because of the change in project ownership. The request shall be submitted on the appropriate form and be accompanied by the appropriate fee (see 18 CFR 401.43).

16. The docket holder shall request a name change of the entity to which this approval is issued if the name of the entity to which this approval is issued changes its name. The request for name change shall be submitted on the appropriate form and be accompanied by the appropriate fee (see 18 CFR 401.43).

17. The Executive Director may modify or suspend this approval or any condition thereof, or require mitigating measures pending additional review, if in the Executive Director's judgment such modification or suspension is required to protect the water resources of the Basin.

18. Any person who objects to a docket decision by the Commission may request a hearing in accordance with Article 6 of the Rules of Practice and Procedure. In accordance with Section 15.1(p) of the *Delaware River Basin Compact*, cases and controversies arising under the *Compact* are reviewable in the United States district courts.

BY THE COMMISSION

APPROVAL DATE: September 10, 2020

EXPIRATION DATE: April 30, 2025